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# **Repositioning rural areas as promising future hot spots**

## **Research Memorandum 2011-13**

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Tüzin Baycan  
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# REPOSITIONING RURAL AREAS AS PROMISING FUTURE HOT SPOTS

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## ***Abstract***

In many countries, rural areas have shown a new spatial-economic dynamics that has meant a contrast with the traditional urban-rural dichotomy. In particular, the need to use economic-ecological sustainability as a guiding principle for new rural development is a prominent feature. But how will rural areas, sometimes suffering from lack of economic development, peripheral positions and relatively low social well-being be able to face new challenges? Can they be attractive, innovative and developed ('hot spots'), while maintaining their sustainability and continuity? This question was the background in conducting our research. Hence, this study aims to answer this question in three steps, viz. (i) offering a contemporary overview, (ii) identifying the critical factors for and defining the driving forces of sustainable rural development and (iii) developing a set of sustainable development scenarios. The first step includes a new concept for rural and regional studies, e.g. hot spots in order to show that rural areas can be regions of development if the priorities for each village can be carefully identified. The following two steps are conducted by the application of the so-called pentagon model and the use of multi-criteria analysis, viz. regime analysis. The data and information deployed in this study are obtained from field surveys conducted in 60 European and 17 Turkish rural areas. The results showed that the challenge to transform rural areas into hot spots is neither impossible nor difficult. On the contrary, rural areas and their inhabitants are ready to achieve such a future, but the policies concerning rural areas need to be restructured. The study concludes by offering some lessons about how to restructure the rural policies.

**Keywords:** rural areas, sustainable rural development, hot spot, pentagon, multi-criteria analysis, regime, Europe, Turkey creativity.

# **1 Contemporaneous Thinking on Sustainable Rural Development**

Everybody is subconsciously thinking about sustainability and development in his/her daily life. People are working hard to maintain their current living standards, while thinking how to ameliorate them. In recent years, the countryside has become a part of these improvement attempts. The impacts of these individualistic personal attempts on rural areas have started to result in exhaustion for the natural and social environment, on the one hand, and, a boost for the man-made and economic environment, on the other. These conflicting impacts, including different perceptions of the use of the terms, pushed both researchers and policy makers to find out how to better evaluate sustainable rural development (SRD), and how to cope with the changes that have been occurring out of control.

The increasing mobility of people, goods and information has helped to corrode local communities and open up the countryside to new uses (Munton, 1995; Murdoch and Marsden, 1995). These changes in rural areas have both advantages, such as the improvement of traditional and existing practices (Curran and Storey, 1993; Elbersen, 2001; Haartsen, 2002; Heins, 2002), and disadvantages, such as traffic congestion, pressure on the natural environment caused by the appearance of new sectors such as tourism, leisure activities and many others (van den Berg, 1991; van den Berg et al., 1998; Bosch and Hanemaayer, 1999).

Economic restructuring, socio-political transformation and changing relations have influenced the position of rural areas in the world system. Today's rural areas, by destroying the dual economy (i.e. the sharp distinction between rural and urban), are no longer merely hinterlands but are also heartlands by offering amenities and unusual new economic activities (Brown and Grilliard, 1981; Tarmann, 2003). Therefore, the newly appeared duality in rural areas has taken the place of the traditional urban-rural dichotomy, while signalling the need to use sustainability as guiding principle for rural development. These opposing views and the impacts of many forces have generated a sense of confusion about sustainable rural development and created an urgent need to answer the question: *"Can rural areas be attractive, innovative and developed (hot spots) while maintaining their sustainability and continuity?"*

This question was our challenge in conducting our research. Hence, this study aims to answer this question in three steps, viz. (i) offering a contemporary approach, (ii) identifying the critical factors for and defining the driving forces of SRD and (iii) developing a set of SRD scenarios. The first step includes a new concept for rural and regional studies, e.g. hot spot in order to show that rural areas can be regions of development if the priorities for each village can be carefully identified. The following two steps are conducted by the application of pentagon model and one of the multi criteria analyses, i.e. regime analysis. The data and information deployed in this study are obtained from the field surveys conducted in 60 European and 17 Turkish rural areas. Although its results are specific to this study, its approach is new for the conjunction of regional and rural studies.

In this section, we have introduced our approach and thinking on SRD, while the following section offers a systemic thinking on the conceptual and theoretical framework of our study. In Section 3, we rethink on rural areas and investigate the evaluation of them as promising

hot spots. The study concludes by offering some highlights about how to restructure the rural policies.

## **2 Systemic Framework for Sustainable Rural Development**

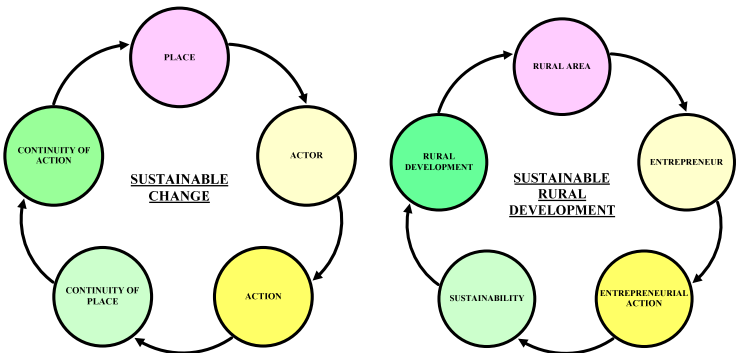
Sustainable development has been the indispensable type of development since the Brundtland Report in 1987 produced by the UN's World Commission on Environment and Development. In this report, called "Our Common Future", sustainable development was defined as the "development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Hence, the importance of combining the development of the economy and technology, while maintaining natural resources, has become the main policy concern (WCED, 1987; IUCN et al., 1991; Munasinghe and McNeely, 1995).

In urban areas, sustainable development practices have been successfully implemented, especially in specific sectors, i.e. transport and energy. However, rural areas, which are already the natural resources of both urban areas and the world, were not involved in these practices, but they were rather seen as merely the land stock in many countries, as well as in theoretical discourses. Furthermore, recent changes in rural areas have shown that sustainable development is also a must for rural areas. Therefore, sustainable rural development (SRD) needs to be present on the agenda of policy makers.

There is no universally accepted theory of rural development which can explain existing rural development and predict its future (Singh, 1999). Rural development, which is not even a sub-discipline of development theories, is still looking for a place in the theoretical repertoire (Ward and Hite, 1998). Therefore, its multidisciplinary aspect allows contributions from many disciplines and approaches (Isserman, 1998). Nevertheless, it does not mean that rural areas were not present in the history of development theories, although they were not the main issue but urban areas were. Hence, having a theoretical framework for rural development studies is not an easy task and depends on the interest and aim of the research (Isserman, 1998; Ward and Hite, 1998). In the Brundtland report, the necessary conditions for sustainable development and sustainable development itself are defined as the composite of seven systems. Therefore, evaluation of sustainable development is basically a way of systemic thinking, which is an approach to solve problems of a system within the overall system. Thus, from now onwards, we discuss SRD in theoretical and conceptual frameworks with a systemic approach. In other words, on this basis, in this section of our study, we propose a systemic framework which is the framework of interacting and interrelating components of a system with a cyclical cause and effect relationship for the evaluation of sustainable rural development.

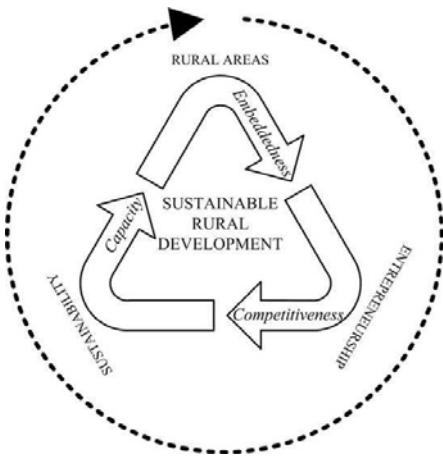
Today, sustainable rural development has been placed high on the world's agenda because of the changing face of rural areas, and, hence, the increasing attention from governments to rural areas and sustainability discourses. Governments and international organizations, i.e. FAO, EU, OECD, are in search of a sustainable change in rural areas. Their experiences show that a sustainable change depends on the locality characteristics of the place, and the

maintenance of their continuity by the actors and their actions which will then lead stakeholders to obtain the continuity of these actions and sustainable rural development (Figure 1). In other words, to obtain a sustainable change in rural areas, a virtuous circle between the place and action, including their continuity, must be provided.



**Figure 1 The conceptual thinking on sustainable rural development.**

In our modern age, endogenous approaches have displaced exogenous models, which conceived the main forces of modern development as emanating from outside rural areas (van der Ploeg, 1995); rural development should be the interplay between local and external forces in the control of development processes. In addition, empirical evidence and new generated theories on rurality and the increasing attractiveness of rural areas have launched a huge debate on the intervening opportunities waiting to be exploited in rural areas. Both sustainable rural development and endogenous development aim to promote the locality features of rural regions, while exploiting them in the global competitive arena. Figure 2 summarizes our theoretical thinking on sustainable rural development (Figure 2).



**Figure 2 The theoretical thinking for sustainable rural development.**

Both the theories and empirical evidence show the importance of the conservation of rural areas for global sustainability, while rural areas call for economic development. Neglected rural areas are changing their face and becoming very important regions which possess numerous intervening opportunities and potential. At the same time, they are in danger,

facing the possibility of disappearing. Intervening opportunity theory (see Stouffer, 1940; 1962) provides us insights about the reasons for the changes in rural areas. In addition, endogenous growth theory (see for instance, Audrescth and Thurik, 2001) gives us a clue about how to obtain sustainability and the continuity of the dynamism in rural areas, while explaining how to benefit from their intervening opportunities and potentials. Having said that, it is important not to forget “the rural” itself. Rural areas are unique communities with a defensive localism linked to their social life. Therefore, the theory of social capital and also the embeddedness theory (see Granovetter, 1985) provide also insights about how to investigate changes and trends in rural areas.

Rural regions face different changes sometimes problematic, sometimes successful, and therefore they are becoming more dynamic and possess various intervening opportunities, increasing their attractiveness in terms of the different flows, which changes the position of rural areas in the global market and competitive arena. Indeed, rural areas as promising hot spots are now important elements of the international economic scene and among the leading investment frontiers (Clout, 1993).

Rural areas can be a region of development in other words “hot spot”, if the priorities for each village can be carefully identified. In other words, tourism – the general development strategy for rural areas – cannot be the sole saviour for sustainable rural development, but rather their locality characteristics and even their agricultural capacities can turn them into hot spots. The term “hot spot” is widely used in ecological sciences and recently in the innovation literature to define a region which is important for its development and sustainability. From an ecosystem-based approach, a hot spot is the region of high global importance for biodiversity conservation (Mittermeier et al., 1998; Beck, 2003). From an innovative approach, a hot spot is regional clusters of firms that compete in the same industry. It begins as one or several start-up firms that as a group grow more rapidly than other industry participants, and that have the same or very similar immobile physical resource requirements in the long run (Pouder and St. John, 1996). From a socio-economic approach, a hot spot indicates a geographical area marked by the extensive political and economic activities, often resulting in very intense multiple-use conflicts and political complications (Thia-Eng, 2007), or a region with high level of land values (Alessa et al., 2008). The term “hot spot” is literally used to show the regions in danger. But, today, the term is changing its meaning to point out regions with high importance or booming places in terms of sustainability and development, especially with respect to innovation or economy.

Governments are making efforts to propel innovation, especially in Europe, by creating competitive clusters centred around a specific sector, i.e. the hot spots, and their development has not only spurred the growth of the creative classes, but has also made competition more local, pitting cities against each other in a struggle to earn recognition and corporate investment (Fishbein, 2008). Therefore, the hot spots have made people who glow with energy and innovation master three main things: to build deeply trusting and co-operative relationships with others; to extend their networks beyond the obvious; and to be on an inner quest that ignites their own energy and that of others (Gratton, 2007). On this basis, rural

inhabitants who already have deeply trusting and co-operative relations with others; who will extend their networks; and who inspire others by their actions can easily transform rural areas into hot spots. But, here, it should be kept in mind that in rural areas innovation or the motive of the hot spot are certainly different from what they are in urban areas.

Fast-growing, geographically clustered firms within industries – sometimes also referred to as “hot spots” have become an increasingly important part of the competitive landscape (Pouder and St. John, 1996). The concept is closely associated with the agglomeration economies, which seem impossible to achieve in rural areas. Nevertheless, in this study, with the help of alternative scenarios, we hope to show how it might be possible to realize the impossible. Therefore, in the following section, we evaluate rural areas as promising hot spots in terms of their capabilities and intervening opportunities, and, in this connection we come up with some scenario alternatives.

### **3 Repositioning Rural Areas as Promising Hot Spots**

The impacts of globalization and the knowledge-based era, as well as the increasing mobility of population towards rural areas, have brought up for discussion a dual development, as well as a dualization in the economy. The discussion on the hinterland-heartland or the core-periphery paradigms has undergone a process of change: the interdependence of rural areas and urban areas has been increasing, while the urban-rural dichotomy has been decreasing over time. Today, many rural areas have become production, as well as consumption, areas. On the one hand, globalization is demanding competitiveness, innovation and cohesion, and, on the other hand, the knowledge-based era is stressing the importance of rural culture and knowledge as scarce goods in danger of being lost. Therefore, sustainable rural development is the call of maintaining sustainability and continuity of rural areas while exploiting their opportunities in the global scene. In order to identify critical factors and the driving forces of sustainable rural development in this study first, we applied the „pentagon model“. Through our model, we have generated sustainable rural development (SRD) scenarios that we applied regime analysis to choose best-fit SRD scenario.

#### **3.1 Data and methodology**

The diversity and complexity of the investigation of rural areas are well-known in the academic arena. The uniqueness of rural areas, the difficulty to classify them and many other issues are the main challenges of researchers in this field. On this basis, in order to reflect the diversity and the uniqueness of rural areas, we have conducted in depth questionnaires in four countries, i.e. Belgium, France, Italy and Turkey. We conducted our survey first, in Europe between July and August 2008 with a special focus on the member settlements of The Association of the Most Beautiful Villages in Belgium, France and Italy that we collected data from 60 members and second in Turkey between March and May 2009 with a special focus on 17 rural settlements selected by means of a multi-stage sampling (see for further information Gülümser, 2009). The survey in Europe was conducted via emails and out of 354 we were able to reach only 254 of them that 60 villages have returned the questionnaire. In addition, in Turkey, 17 villages were selected as the result of multi-stage sampling that the



questionnaire was conducted face-to-face by visiting all the villages.

The European questionnaire applied has four main parts, (1) the general information; (2) the environmental characteristics; (3) the relations and connections with the outside; and (4) the changes. Part 1 and Part 2 were designed to reveal the similarities and the differences of the characteristics of the villages, while Part 3 was designed to measure the attractiveness of villages, and Part 4 was designed to evaluate the changes occurred in the villages. When preparing the questionnaire, the aim was to highlight the perception of relevant experts, with a special focus on the changes occurring in rural regions. In Part 1 of the questionnaire, we investigated the characteristics of the villages. In Part 2, we asked questions about the natural, physical and social environment. Part 3 focused on the diverse networks created inside the villages and built between the village and the outside.

The Turkish questionnaire is almost the same as the one used for the European case, except the second part, which is related to the environmental characteristics of the villages. The reason not to include this part related to the characteristics of the villages was that we visited all the villages thus we were able to answer these questions during the field surveys. The questionnaire of villages for Europe and Turkey are intrinsically the same however due to the operational definitions they differ in terms of partition and in terms of some additional information needed to be collected, i.e. the data on the association for the European case. The questionnaires were translated into French, Italian and Turkish in order to avoid any language problems.

In order to evaluate our findings, we have used first the pentagon approach which is methodologically powerful and empirically valid for systemic thinking about and for evaluating multi-dimensional complexity on the basis of its use in various studies (Nijkamp, 2008). Therefore, the pentagon model plays an important role as a systemic framework for identifying critical success/failure factors and the possible driving forces in the search for sustainable development. Normally, the pentagon model includes five distinct factors which are visualized by a pentagon prism. These factors are:

- Hardware: the physical and technological construction works of the infrastructure, in particular its degree of sophistication and innovation;
- Software: the information and communication potential of the infrastructure provision concerned, in particular its broader network-connecting potential;
- Orgware: the degree of managerial, regulatory and organizational competence involved, with a view to enhancing the efficiency and the satisfaction of customers' needs,
- Finware: the cost-effectiveness and financing aspects of the infrastructure investment, with a particular view to the improvement of the competitive position of the infrastructure facility,

- Ecoware: the contribution of the infrastructure concerned to an enhancement of ecological quality conditions, in particular from the viewpoint of sustainable development (Pepping and Nijkamp, 1998).

On this basis, we designed a pentagon model for sustainable rural development. This model helped us to imagine a hot spot future for rural areas and we continued our evaluation with a scenario development that we benefitted from the results of our research conducted in 60 rural settlements in Europe and 17 rural settlements in Turkey. After defining the sustainable rural development scenario alternatives, in order to point out the best-fit sustainable rural development scenario, and to see which rural user prefers which scenario alternative, and how they rank them through their perceptions, we applied multi-criteria analysis (MCA). MCA comprises various classes of decision-making approaches.

There are various MCA methods, but in this study we applied the regime method. Regime analysis is a discrete multi-assessment method suitable to assess projects, as well as policies by coping with both qualitative and quantitative information (Hinloopen et al., 1982; Nijkamp et al., 1990; Baycan-Levent et al., 2009). It uses pair wise comparisons to assess the performance of alternatives and the outranking relationships are built between the alternatives (Nijkamp et al., 1990). The fundamental framework of the method is based upon two kinds of input data: an impact matrix, and a set of weights (Nijkamp et al., 1990; Hinloopen et al., 1983). The impact matrix is composed of elements that measure the effect of each considered alternative in relation to each relevant criterion. The set of weights incorporates information concerning the relative importance of the criteria in the evaluation. If there is no prioritisation of criteria in the evaluation process, all criteria will be assigned the same numerical weight value. The regime method presupposes a distinct set of a-priori-defined alternatives and a distinct set of a-priori-defined evaluation criteria. For all criteria together this then leads to a “regime matrix”. Then, by adding a weight vector, the relative dominance of each alternative can be assessed in the form of a performance (or success) indicator. The findings of our surveys and the application of above mentioned methods are presented in the following sections.

### **3.2 Critical factors and driving forces for sustainable rural development**

In our study, taking into consideration the systemic approach to sustainable development in the Brundtland report (see WCED, 1987), we generated our own critical conditions for sustainable rural development by means of the pentagon approach. In our evaluation, we have used a pentagon prism, in order to distinguish a limited systematized set of critical factors that exert a decisive impact on sustainable rural development, despite the multidimensional complexity of rural areas in their struggle for economic development and sustainability. In the description of each factor, it is important to identify the sub-factors/decomposition of each pentagon factor. Therefore, our five critical factors called “systems” and their decompositions are as follows ( Figure 3):

- Physical system: This factor represents the technological and infrastructural advances in rural areas including the availability and the level of use of technology and

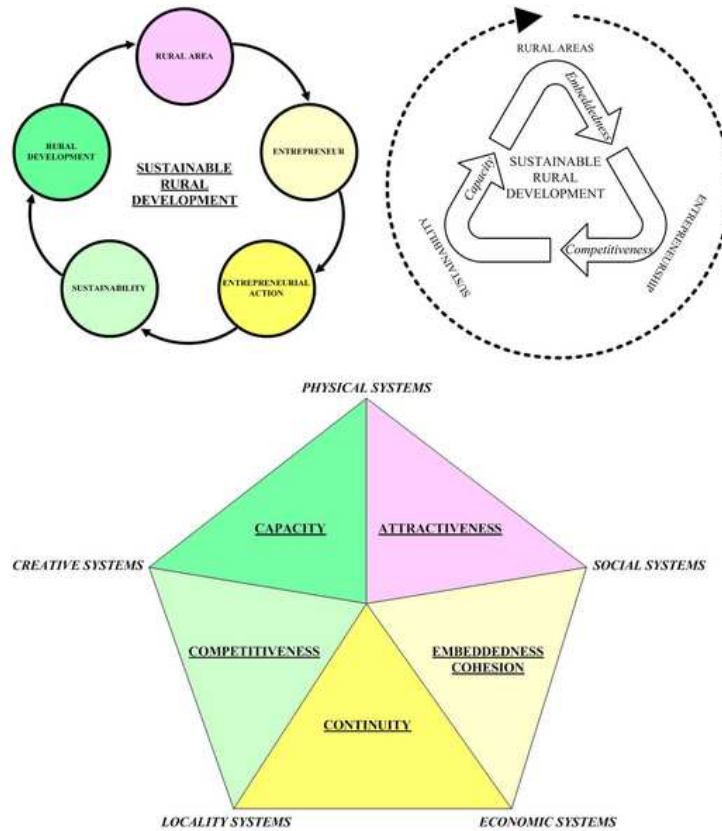
infrastructure, and their integration in daily life. Its sub-indicators are:

- Built-environment: This is related to the quality of the man-made environment through which the well-being and living standards of villagers can be obtained;
  - Infrastructure: This indicator refers to basic infrastructure needs of rural users, viz. water, electricity, phone, etc.;
  - Technological infrastructure: This is related to the basic ICT technology and also technologies for the improvement of innovative economic activities;
  - Accessibility: This refers to the availability of basic modes of transportation;
  - Location of the village in relation to the agglomerations: This means the level of the remoteness of the villages and their physical distance to the nearest urban settlements.
- Social system: The concept is related to the degree of breaking the closed localism in rural areas, in terms of the creation of an innovative and entrepreneurially-oriented culture by encouraging the participation of locals. It is also related to the degree of open-mindedness of the rural communities. Therefore, the sub-indicators are:
    - Openness: This is the level of tolerance of villagers to the new people and novelty in economic activities, as well as novelty in their daily life, i.e. technology;
    - Social relations: This indicator is the external and internal ties of villagers;
    - Newcomers: These are the in-migrants and visitors in the villages who can easily affect the social life in rural areas;
    - Participation: This is the level of the involvement of inhabitants in the decision-making processes.
  - Economic System: This factor refers to the non-agricultural activities/economic diversity by means of which sustainable rural development can be realized with the involvement of entrepreneurs. The decomposition of this factor is as follows:
    - Economic diversity: This concerns the non-agricultural economic activities in the rural areas;
    - Entrepreneurship: This refers to the continuity of entrepreneurial activity;
    - Human capital: This indicator means the creation of job opportunities and the education level of the economic actors;
    - Externality: This refers to the level of use of external information in the economic activities;
    - Promotion: This indicator deals with the types of promotions that identify the position of rural areas in the open market.
  - Locality system: This concept is related to the characteristics which have led an area to become rural, i.e. traditions, cultural values, nature, and landscape. Therefore, the decomposition of this critical factor is as follows:
    - Natural capital: This refers to the landscape and natural resources in the rural areas;
    - Cultural capital: This deals with the cultural heritage, traditions, values and uniqueness of the villages which have survived until today, and which are the

- part of the daily life of rural inhabitants;
  - Local knowledge: This refers to the hidden or undiscovered knowledge which is related to the cultural heritage.
- Creative system: This factor deals with the creative activity which takes place in rural areas as a result of the combination of technology and knowledge. This is a vital system for sustainable rural development, as the driving forces related to this factor are innovation and competitiveness that help rural areas to be present in the open market. The sub-indicators are:
  - The conversion of local knowledge: This means the level of use of local knowledge as an input of economic activities;
  - The involvement of technology in the traditional production systems.

The fulfilment of these pentagon factors will most likely have a positive impact on sustainable rural development. But the degree of these impacts can change due to the heterogeneity of rural areas.

Although there can be many driving forces for sustainable rural development (SRD), here we discuss five of them which are related to the five critical factors of SRD and our systemic framework for SRD (Figure 3). These driving forces concern both the need of rural areas to achieve sustainable development and the needs of today. Thus, they are: (i) attractiveness, which is the main driving force to change the face of rural areas and to improve their economic system; (ii) embeddedness/cohesion, which is the most difficult issue to change, but the easiest to obtain in socially-oriented communities like rural communities; (iii) continuity, which is the main focus of sustainability; (iv) competitiveness, which is a must for being present in the open market; and (v) the (creative) capacity, which these days is the indispensable vehicle for competitiveness (Figure 3).



**Figure 3 The critical factors of and driving forces required for sustainable rural development.**

Attractiveness, the first driving force, is mainly obtained by the improvement of physical and social systems: in other words, the quality in terms of infrastructure and built-environment, together with the accessibility of the villages where there is a high tolerance level to attract more visitors. Although the attractiveness of a village is a success factor, when it exists, it can also be a failure factor because over-attractiveness can limit the sustainability and the continuity of the activities. Especially if the attractiveness turns into mass attractiveness, it will change the motivation of population moving to villages. Therefore, for the visitors and the villages, including the inhabitants, attractiveness can also be a failure factor, as the social system may change in a negative way.

The second driving force, embeddedness/cohesion, is mainly related to the social system but also to the economic system. The tolerance and the openness of inhabitants to new economic activities and entrepreneurs, as well as to the visitors, are very important, and the continuity of rural areas cannot be obtained without it. But to become embedded in a rural locality, it is very important to respect the locality features, the rural capital, and the cultural capital. The third driving force is continuity, and this depends on three factors as was the case with embeddedness. As it refers the continuity of the localities as well as their economic activities, it depends on the locality and the economic systems, but, without the inclusion of the social system, it cannot be obtained.

The fourth driving force is competitiveness, which can carry rural areas into the global arena and give them a voice there. Rural areas, with all their localities, are, on the one hand, very lucky to have the capital to compete, but, on the other hand, the lack of education and awareness, as well as the lack of the knowledge of creativity make them scared to compete, or even try to compete, in the global arena. In addition, being small in size and having difficulty in creating agglomerations or densities of activities can be cited as the deterrent factors for rural areas to enter in the competing world. Finally, the fifth and the most important driving force is the capacity, which, here, refers to the combination of technology, localities and the high quality of life in the villages. This driving force shows how innovative a village can be.

Above, to come up with a number of relevant and plausible SRD scenarios, we defined five critical factors of SRD on the basis of the systemic framework of our study. In the next section, we offer hot spot future with four SRD scenarios.

### **3.3 Sustainable development scenarios for rural hot spots**

Scenario analysis judges a set of hypothetical development alternatives for a complex system in order to generate a consistent response to future uncertainties and backgrounds so as to ease and optimize the learning mechanism for both decision makers and policy makers (Finco and Nijkamp, 1997; Nijkamp and van Hemert, 2007). The hypothetical development alternatives can lead to a feasible choice of alternatives based on a solid empirical framework. On the basis of our empirical frameworks, we developed four scenarios using the critical factors for sustainable rural development defined by the results of our research in the European and Turkish villages. These four scenarios are defined on the basis of the knowledge and locality features in rural areas. Therefore, they are named after the locality which was articulated most. These scenarios are as follows:

Scenario 1 – Green Hot Spot: This scenario is our base scenario, as rural areas are already the places to experience nature and green landscapes. In other words, this scenario offers the continuity of rural areas as reservoirs of natural resources. These villages will not need to have a high level of tolerance as they will be attractive because of their surrounding nature. In addition, they need to keep up their physical system, maybe not in terms of technology, but certainly in terms of infrastructure and built-environment. On this basis, on account of their landscapes, they will promote and thus obtain some level of the economic system. In addition, the knowledge of inhabitants about nature and on how to deal with nature will be used as guidance for visitors, and thus economic diversity will be obtained, and creativity will be high. But it is necessary to obtain the awareness of the inhabitants about the visitors and their possible needs, as well as the consciousness of visitors about the locality and social system. This scenario refers to those villages which benefit from their landscapes and nature, and therefore does not ask for a high level of tolerance or economic diversity, although both will be present ultimately. In addition, technology to overcome the natural difficulties, i.e. telecommunication and promotion, is definitely needed.

Scenario 2 – Agricultural Hot Spot: When we talk about a village we cannot ignore the agriculture. This scenario accepts that a village can be an Agricultural Hot Spot as a result of the improvement of technology and infrastructure for agricultural production and also the strengthening of market relations, while keeping the locality system alive. Rural areas are already the homelands of the agricultural sector. But, basically, they do not benefit from this power on account of the lack of marketing capabilities, as well as because of product selection which is related to the national economy not to the geography or local knowledge. For sustainable development, technology is absolutely vital, but, for rural development, the impact of technology can be harsh if it is not associated with local knowledge. Thus, technology improvement must be very well connected to the locality system and can be transformed into real development when it increases productivity and economic growth in rural areas, especially in agricultural sector. Therefore, to achieve this scenario, rural areas need to be highly creative, but do not need to exploit their locality or to change their social networks. In addition, they need well-improved promotion and economic networks, but they do not need a very well-developed economic diversity, although a sufficient level of physical networks will be necessary for such a future.

Scenario 3 – Cultural Hot Spot: This scenario refers to the village which has become a hot spot in order to expose and exploit its cultural heritage, including its natural environment and its locality. In this scenario, it is assumed that rural areas convert their cultural capital into economic activities without destroying their traditional system. In order to do that, these hot spots need a high level of open mindedness as well as a high level of locality which will ultimately result in economic diversity. However, the idea to keep the traditional way of production does not call for a high level of technology to answer the basic needs of rural users, and the village will automatically attract attention. In this case, to create some level of physical network will be enough. In other words, to make rural areas accessible will be sufficient.

Scenario 4 – Learning Hot Spot: This scenario has been constructed in order to explore the high level of innovativeness in rural areas. In other words, this scenario suggests that rural areas can also be innovative hot spots, referring to those villages which will be the place to learn about the local knowledge, traditions and cultural capital as the resource/input of research and development (R&D) and innovative activities. These villages can be the places where researchers, governments, private firms and students can be trained or experience the local knowledge. For instance, students in related study programmes (e.g. veterinary studies) can come to such villages to experience daily life in rural areas, while learning how to deal with the practical problems faced in their profession. In this way they can take advantage of experiencing how people are used to dealing with such problems in relatively less developed areas using their local experience and knowledge, their only resource. Therefore, a mutual benefit can be obtained. Another option can be that related institutions or NGOs could be located in such villages and could benefit from locality

systems. Thus, such villages need highly developed physical and social systems with a high level of creativity. Even though such villages will not need highly developed economic systems, and they are not based on economic concerns but rather on innovative and R&D concerns, innovation will bring economic development and external networks, as well as economic diversity.

Although our scenarios are generated on the basis of our in-depth evaluation, the future of rural areas depends on the perspective of different rural users and areas. In the following subsection, we investigate the will of different users by the application of regime analysis.

### 3.4 Best-fit hot spot future: perspective for rural users

To evaluate the perspective of different rural users for the future of rural areas, we applied a multi decision analysis technique, called regime analysis. The regime method leads to an unambiguous quantitative ordering of all choice alternatives. As the future policy-making environment is uncertain, it is necessary to identify the key issues of policy making that are to be of importance over the medium and long term if effective strategic decisions are to be made. Then, the first impact matrix can be generated and used to compare the four scenarios (Table 1). The four scenarios explained above are scored in Table 1 in terms of the evaluation of the five pentagon factors which are the key issues in sustainable rural development from our perspective.

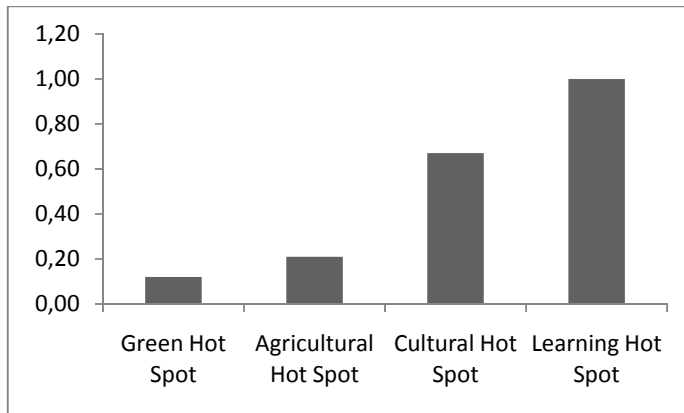
**Table 1 Scenarios coded by the five critical factors – Impact matrix I.**

	Green Hot Spot	Agricultural Hot Spot	Cultural Hot Spot	Learning Hot Spot
Creative Systems	4	4	3	4
Economic Systems	3	3	3	2
Locality Systems	2	2	4	3
Physical Systems	2	3	2	4
Social Systems	3	2	4	4

The scores vary between 2 and 4, depending on the level of change needed in terms of the factor to succeed in the designed future. For instance, in the Green Hot Spot scenario, we mentioned that the inhabitants do not need to have a high level of tolerance, but some level is enough, as the village derives economic benefit not from its own economic activities but rather from its green surroundings. Therefore, the factor “social systems” is scored 3. This table forms the impact matrix for our evaluation. In the application of the regime analysis, we used the software called BOSDA, which was designed for the SAMI project undertaken by the VU University, Amsterdam. In order to apply regime analysis, we also need to give weights and construct the weight matrix. As we do not use a stakeholder analysis to determine the opinions of different stakeholders/users in rural areas, and, as each critical factor is equally important (equally “weighted”) from a sustainable rural development perspective, we used equal weights for each of the scenarios, and we thus come up with an inductive result. On this basis, we applied our regime analysis giving equal weights to the factors. The ranking of scenarios based on the results is shown in Figure 4. This shows that the Learning Hot Spot scenario is the best-fit scenario for rural areas to be in the open market



with their localities. On the other hand, the second best-fit alternative is the Cultural Hot Spot scenario, followed by the Agricultural Hot Spot and the Green Hot Spot scenario, as the third and fourth alternatives, respectively.



**Figure 4 The ranking of the four hot spot scenarios.**

To increase the plausibility of our analysis and results, we also applied stakeholder analysis in terms of our scenario selection. To apply this analysis, we formulated a weight matrix depending on the results of our surveys conducted separately in the European and Turkish villages (Table 2). On this basis, we evaluated the four scenarios from the perspective of different rural users, viz. the inhabitants, the entrepreneurs, and the visitors, including the village itself again by means of the regime method.

**Table 2 Set of weights from the perspective of rural users.**

	Inhabitants	Villages	Visitors	Entrepreneurs
Europe				
Physical Systems	0	1	2	2
Social Systems	1	2	2	1
Economic Systems	1	2	3	3
Locality Systems	0	1	1	2
Creative Systems	0	0	0	1
Turkey				
Physical Systems	2	3	2	3
Social Systems	3	1	1	1
Economic Systems	1	2	1	1
Locality Systems	0	3	2	2
Creative Systems	0	0	0	1

According to the results of the analysis, the views of the future envisaged by rural users and the villages in both Europe and Turkey are diverse (Table 3). Although there is diversity in Europe in terms of the future preferences, what villages need and what visitors prefer for the future rural areas seem similar, while in the case of Turkey, villages and entrepreneurs' preferences also show some similarities. These differences are more likely to depend on the diverse perception of intervening opportunities, the motivations, and the priorities of different rural users.

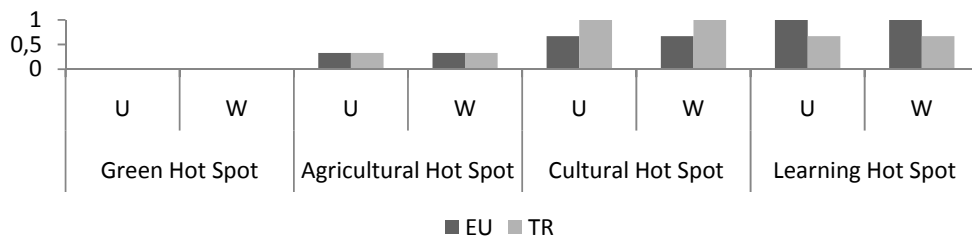
But it can be said that more users in European villages are eager to have the scenario

Learning Hot Spot as their first choice, although the inhabitants are not so enthusiastic. A Cultural Hot Spot future clearly comes second. However, the choice between Green and Agricultural Hot Spot futures for third and fourth place is not so clear. For the case of the Turkish villages, we cannot say what the users want as their first choice, but we can state that in general they do not want an agricultural future, although the inhabitants do want this kind of future. However, although we can see the separate choices of different actors in different places, we still do not know which alternative is the best-fit to meet the needs of all actors. To clarify this uncertainty, we formulated another impact matrix using the performance indicators of each scenario. The performance indicator is the indicator that was obtained as the result of the regime analysis. Therefore, we reapplied the regime analysis.

**Table 3 The performance indicators of the stakeholder analysis.**

		Green Hot Spot	Agricultural Hot Spot	Cultural Hot Spot	Learning Hot Spot
Europe	Inhabitants	0.36	0.01	0.89	0.74
	Villages	0.00	0.33	0.70	0.97
	Entrepreneurs	0.33	0.00	0.67	1.00
	Visitors	0.13	0.21	0.77	0.90
Turkey	Inhabitants	0.03	0.49	0.66	0.81
	Villages	0.33	0.00	0.92	0.75
	Entrepreneurs	0.34	0.00	0.93	0.73
	Visitors	0.33	0.00	0.81	0.85

In the second application of the regime analysis for the stakeholder analysis, we first took the views of all users as equally important for the future of rural areas and applied the analysis. We called the results of this analysis the “equally weighted ranking” (U), and then we applied the method by weighting the view of the users, which we called the “weighted ranking” (W). When weighting the views, we gave the heaviest weight to the views of inhabitants and villages as these are the 24/7 users, followed by those of the entrepreneurs who are the catalysts in the SRD, and then those of the visitors who use rural areas occasionally. It emerged that the results of the weighted and equally weighted application of the regime method did not change the ranking of the scenarios either in Europe or in Turkey (Figure 5). However, the priorities of the Turkish and European villages are different from each other in terms of ranking.



**Figure 5 The ranking of scenarios – Stakeholder analysis.**

According to the results, both Turkish and European villages want to have an active role rather than just benefitting from their green surroundings, so they are not eager to become a Green Hot Spot. In addition, being an Agricultural Hot Spot could be an option for both

Turkish and European villages, but it is not the most preferred one. The overall opinion of users in European and Turkish villages differs on the most preferred scenario and its alternative. Turkish villages are looking forward to being Cultural Hot Spots, while the European villages would prefer to be Learning Hot Spots. Therefore, we can conclude that the European villages are ready to be the promising rural innovative hot spots, while the Turkish villages, which have not yet benefitted from tourism and their culture, are eager a priori to exploit their cultural capital.

Both the applications of the stakeholder analysis showed that the Learning Hot Spot scenario is the best-fit scenario for an innovative, sustainable and developed future for rural areas. The differences in the ranking of rural users also suggest that each stakeholder has its own perception. According to the results of this ranking, the outsiders' perception and the perception of economic agents do not match that of the insiders who actually live in rural areas.

#### **4 Discussion and Interpretation**

The usual perception of rural areas by urban dwellers is that they represent the Arcadian idyll consisting of beautiful landscapes and agricultural activities. But, actually, rural areas, besides their diverse landscapes, are characterized by diverse economic activities, a unique social life, and a rich cultural heritage. Although the perception of urban inhabitants can lead us to think that rural areas with such a beautiful image do not have serious problems, in reality they do have many problems, viz. the changing role of agriculture, the environmental and natural protection and sustainability of rural landscapes, the ageing, impoverishment and depopulation of rural areas, the almost complete disappearance of the traditional peasant society and lifestyle, and different effects and problems originating from the above-mentioned changes (Varga and Varga, 2008). Several models are competing today to deal with such problems. Especially since the release of the Brundtland Report and the complex concept of "sustainability", governments, researchers, and many other stakeholders have been trying to make the sustainability concept useable for the development of rural areas.

To this end, we aimed to envision a series of futures for rural areas which are considered to be promising hot spots, in an attempt to make the concept of sustainability useable for the future of rural areas in an innovative way. The diversity and the heterogeneity of rural areas under investigation led us to discuss the future of rural areas from a sustainable rural development point of view. Therefore, by means of the pentagon approach, we defined the critical factors for sustainable rural development on the basis of the theoretical and conceptual frameworks of our study, as well as the empirical evidence obtained from our field surveys. At the end of the pentagon analysis, we came up with five critical factors, viz. physical systems; social systems; economic systems; locality systems, and creative systems, which are related to the five driving forces of sustainable rural development, viz. attractiveness; embeddedness; continuity; competitiveness; and capacity. Through these findings, we came up with four sustainable rural development alternatives that we called: Green Hot Spot; Agricultural Hot Spot; Cultural Hot Spot; and Learning Hot Spot. When

generating these alternatives, our main approach was that rural areas are the promising hot spots, and therefore can be transformed from unappreciated and neglected places into appreciated and important places in the global scene, while maintaining their sustainability. In this connection, we assumed that innovation and creativity are vital in rural areas to achieve sustainable rural development (SRD).

In order to be able to rank the generated SRD scenario alternatives, we applied multi-criteria analysis (MCA) and, from among several MCA methods, we decided to apply the regime method in our evaluation. The application of regime analysis was to identify the performance of each scenario depending on the priorities given to each critical factor.

In addition, to strengthen our findings, we also applied a stakeholder analysis: first, on the basis of the priority given to the critical factors from the perspective of each user; and, secondly, on the basis of the priority of rural users in the future of rural areas.

The results of the application of the regime method showed that the Learning Hot Spot scenario was ranked the first, followed by the Cultural Hot Spot, the Agricultural Hot Spot, and the Green Hot Spot scenarios. These results are powerful, as the results of the first stakeholder analysis showed that most of the rankings of each user were the same. But as the perception of individuals are unique to themselves, some users, viz. the European villagers, the Turkish entrepreneurs and also the Turkish villages gave priority to the Cultural Hot Spot future more than to the Learning Hot Spot future. The results of the second stakeholder analysis showed again that, for the European case, our ranking of scenarios is powerful, while, for the Turkish case, the first-ranked scenario is again the Cultural Hot Spot.

The rural areas are ready to be exploited and want to be a part of the open market with a high level of participation. Therefore, to accept them only as places where there are beautiful landscapes and nature or merely as reservoirs of natural resources will be unfair for their future. On the other hand, it is also accepted that they will continue to be the homeland of agriculture. The results showed that the European and the Turkish villages in our sample differ very much from each other in terms not only of their appearance but also of the mentality of their users. In addition, the preferences of users also differ among the villages in Europe and Turkey quite clearly.

Furthermore, the results suggested that the European villages are more innovatively-oriented than Turkish villages, and have already gone beyond the stage of promoting tourism and the protection of environment. Therefore, they are now eager to share their experiences as learning Hot Spots. On the other hand, Turkish villages and Turkish rural users suffer from a lack of participation and a lack of awareness, and so they are more enthusiastic about becoming Cultural Hot Spots rather than Learning Hot Spots. In the next section, we conclude by suggesting some policy lessons.

## **5 Prospective Thinking on Sustainable Rural Development**

The sustainable future of rural areas is one of today's hot policy issues. The policies related

to rural areas have usually been focused on agriculture-related issues, i.e. agricultural productivity, and also on the amelioration of rural well-being. Lately, this has turned into a tourism-oriented focus, and thus rural areas have changed. Economic growth and globalization have put pressure on human and natural resources. Thus, their protection and maintenance depends on the achievement of sustainable development. Although there seems to be great interest in sustainable rural development, the latest changes have exposed a lack of attention. Today, rural areas are experiencing deep structural changes in their economy that are most likely to accelerate. However, these changes are not the only ones occurring in the rural economy: there are also major demographic, social and cultural transitions.

Our envisioning a series of futures for rural areas is limited to the villages in our sample. Nevertheless, the results of the analyses and the scenarios enabled us to come up with ten policy lessons. These lessons are:

1. To make the sustainability useable for the rural development, importance should be given to rural-specific evaluation.
2. Sustainable rural development should be constructed by an endogenous rather than an exogenous approach, which is related to bringing in, and benefitting from, the world outside rural areas.
3. The objectives of sustainable rural development plans should first be concerned with the locality features, and then with the global and national needs.
4. The benefits from the existing intensity of social relationships in rural systems can bring more sustainable competitive advantage to the rural areas than creating density of activities.
5. The increase and the improvement of the awareness of inhabitants can result in an innovative and sustainably developed rural area.
6. The definition of an active role for each stakeholder in rural areas can prevent the decline of rural areas, as well as their depopulation.
7. Economic development cannot be thought of independently of the social systems in rural areas.
8. Social development should be the main component of sustainable rural development rather than economic development which is only a tool to improve the well-being of villagers, but not their main purpose in life.
9. Innovative activity (R&D) can be obtained and survive in rural areas if it is firmly based on local knowledge.
10. Even though tourism is associated with creating job opportunities and economic diversity, if only tourism is brought to the villages without the involvement of the settlements and

the cultural capital provided by the inhabitants, then sustainable rural development as a whole could fail.

Therefore, we suggest that rural dwellers, who are often productive and hardworking people, need dynamic sustainable rural development solutions in which they can have an active role. They are innovative and entrepreneurially-oriented, but they need to be stimulated, not by general subsidies or financial support, but rather by locally-based subsidies that are more focused on the increase of awareness in rural areas. In other words, solutions created for the development of rural areas on the basis of national, economic, global or urban-oriented approaches can misdirect the future of rural areas. Each rural area must be taken into consideration in a unique way, while anticipating an innovative future for all of them, and giving them their real share in this future and in the global arena, instead of keeping them in reserve.

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